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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/797,713	03/10/2004	Rolf U. Halden	JHUHLD1	4304
21874	7590	09/15/2006	EXAMINER	
EDWARDS & ANGELL, LLP			SRIVASTAVA, KAILASH C	
P.O. BOX 55874			ART UNIT	
BOSTON, MA 02205			PAPER NUMBER	

1655

DATE MAILED: 09/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/797,713	<b>Applicant(s)</b> HALDEN, ROLF U.	
	<b>Examiner</b> Dr. Kailash C. Srivastava	<b>Art Unit</b> 1655	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 March 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-44 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### **Claims Status**

1. Claims 1-44 are pending.

### ***Election/Restriction***

2. Restriction to one of the following inventions is required under 35 U.S.C. §121:
  - Group I, consisting of claims 1-2, 4, 6, 8, 10, 12, 14 and 16 drawn to a method of environmental monitoring and bioprospecting via determining a microbe/ microbial activity in a microcosm of an environmental sample, classified under Class 435, Subclass 29 for example.
  - Group II, consisting of claims 1, 3, 11 and 15 drawn to a method of environmental monitoring and bioprospecting, wherein the capillaries of the monitoring device are configured to be analyzed through automated analysis, classified under Class 436, Subclass 63 for example.
  - Group III, consisting of claims 1 and 5 drawn to a method of environmental monitoring and bioprospecting, wherein the capillaries of the monitoring device are rapidly configured into microtiter plates, classified under Class 422, Subclass 942 for example.
  - Group IV, consisting of claims 1 and 9 drawn to a method of environmental monitoring and bioprospecting, wherein the capillaries contain a specific diffusible substance, classified under Class 422, Subclass 946 for example.
  - Group V, consisting of claims 1 and 13 drawn to a method of environmental monitoring and bioprospecting, wherein before locating the device the capillary microcosm is configured to address a specifically chosen research interest, classified under Class 422, Subclass 947 for example.
  - Group VI, consisting of claims 17-40 drawn to a device for environmental monitoring and bioprospecting, classified under Class 422, Subclass 939 for example.

### ***Inventions are Independent and Distinct***

3. The inventions are distinct, each from the other because of the following reasons:

Inventions in Group VI and I-V are related to each other as device and a method to use said device. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product [MPEP § 806.05(h)]. In the instant case, the device of Group VI is applicable to detect any microorganism in any sample from any place, e.g., air conditioning ducts in a building, a riverbed or a construction site/project for residential purposes.

Inventions in Groups I-V are unrelated to each other because they are directed to different inventions that are not connected in design, operation and/or effect. These inventions are independent since they are not disclosed as capable of use together. They have different modes of operation, they have different functions, and/or they have different effects. One would not have to practice the various methods at the same time to practice just one method alone (MPEP § 806.04, MPEP § 808.01). In the instant case, for example invention recited in claims encompassed in Group II are directed to bioprospecting an environment/microcosm utilizing a container comprising capillaries that are to be robotically analyzed, whereas invention in Group V is directed to environmental/monitoring/bioprospecting with a specific research interest which is different than the objective of the invention in Group I and further Group V invention requires a different configuration of the device than that for invention in Group I.

The inventions discussed above are independent and distinct, each from the other. They have acquired a separate status in the art as a separate subject for inventive effect and require independent searches. The search for each one of the above inventions is not coextensive particularly with regard to the literature search. For example the search strategy for any of groups Group I, III-V invention will not require to incorporate robotics mediated automation for the sample analysis as will be essential to search the invention in Group II. Similarly, other inventive groups have specific key words that must be incorporated in the search strategy for those groups. Further, a reference that would anticipate the invention of one group would not necessarily anticipate or even make obvious another group. Finally, the consideration for patentability is different in each case. Thus, it would be an undue burden to examine all of the above inventions in one application.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification (Note that classification encompasses both Class and subclass, not merely the Class) and their recognized diverse subject matter, they would illicit an undue burden on the examiner to search and examine all the inventions in groups I- IV in one single application. Furthermore, the criteria for patentability may not be same for each of the recited groups and what may be applicable for one group may not at all be applicable to other group. Thus, restriction for examination purposes as indicated is proper.

### ***Species Election***

4. This application contains claims directed to different methods comprised of a variety of components. The search for each of the above inventions is not co-extensive, particularly with regard to the literature search. This is because of the fact that the inventive groups discussed above incorporate numerous components within each of the same, single method. For example, to conduct a literature search for invention in Group II or VI that is constituted of different components, one would be searching for a total number of combinations that will be a factorial of at least 34 with each one of the ingredients up to ingredient number 1 (i.e.  $34 \times 33 \times 32 \times 31 \times 30 \times 29 \times 28 \times 27 \dots 34 \times 1$ ). Thus, this group alone will exert an enormous search burden on the Examiner. Additional groups will be the limitations listed in Claim 1 for example. The sum total of all the groups will be a number of geometrical proportions. Therefore, if the applicant elects any one of Groups I-II and V-VI above, the applicant must also make election of species by electing only one single species from each of the following categories:

- i. Those listed in Claim 13;
- ii. Those listed in Claim 14;
- iii. Those listed in Claim 15;
- iv. Those listed in Claim 16; and
- v. Those listed in Claims 37-40.

**For example if the applicant elects for prosecution the method of Group II, the applicant's election statement may for e.g., be: "Applicant elects the invention in Group II consisting of claims 1, 3, 11 and 15 drawn to a method of environmental monitoring and bioprospecting, wherein the capillaries of the monitoring device are configured to be**

**analyzed through automated analysis and additionally elects the species, "The fate in said environment of a specified pathogen, wherein at least one of said capillaries is configured to contain said pathogen" for further prosecution on merits".**

5. If applicant elects any one of Groups I-II and -VI, the applicant is required under 35 U.S.C. §121 to elect a single disclosed species as elucidated above, enumerating all ingredients therein for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, Claims 1 and 17 are generic.

6. Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election. Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR §1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species [MPEP § 809.02(a)].


Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. §103(a) of the other invention.

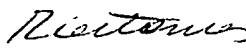
7. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR §1.48(b) if one or more of the currently named inventors are no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR §1.48(b) and by the fee required under 37 CFR §1.17(l).

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Kailash C. Srivastava whose telephone number is (571) 272-0923. The examiner can normally be reached on Monday to Thursday from 7:30 A.M. to 6:00 P.M. (Eastern Standard or Daylight Savings Time).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Terry McKelvey, can be reached on (571)-272-0775 Monday through Friday 8:30 A.M. to 5:00 P.M. The fax phone number for the organization where this application or proceeding is assigned is (571)-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding may be obtained from the Patent Application Information Retrieval (i.e., PAIR) system. Status information for the published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (i.e., EBC) at: (866)-217-9197 (toll-free). Alternatively, status inquiries should be directed to the receptionist whose telephone number is (703) 308-0196.

  
Kailash C. Srivastava, Ph.D.  
Patent Examiner  
Art Unit 1655  
(571) 272-0923

  
RALPH GITOMER  
PRIMARY EXAMINER  
GROUP 1200

September 11, 2006